

Claims

What is Claimed is:

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1. A device comprising:
 - a communication arrangement;
 - a housing enclosing the communication arrangement, the housing having an opening formed therein;
 - a cover mounted over the opening in the housing, the cover including a peripheral housing contacting portion which extends around the opening; and
 - an antenna mounted within the housing contacting a portion of the cover and being spaced from the housing so that the antenna and the opening cooperate to handle signals for the communication arrangement.
 2. The device according to claim 1, further comprising:
 - a processing arrangement situated within the housing and coupled to the communication arrangement, the processing arrangement processing the signals.
 3. The device according to claim 1, wherein the device is a bar code scanner and further comprising:
 - a sensing element detecting bar codes through the opening in the housing and converting the bar codes into signals,
 - wherein the sensing element provides the signals to the communication arrangement which transmits the signals to a communication base station.
 4. The device according to claim 1, wherein the communication arrangement communicates with a communication base station which is capable of at least one receiving and sending signals from and/or to the device.
 5. The device according to claim 4, wherein the communication arrangement and the

communication base station utilize a wireless communication protocol to transmit the signals.

6. The device according to claim 1, further comprising:
a wire coupling the antenna to the communication arrangement, the wire extending out of the cover into the housing.
7. The device according to claim 1, wherein the opening of the housing is a half of a wavelength of the signals at a frequency of operation, and wherein an edge of the opening operates with the antenna as a loop antenna at a desired frequency.
8. The device according to claim 1, wherein the opening of the housing is substantially free of an electrically conductive material.
9. The device according to claim 1, wherein the housing is composed of an electrically conductive material
10. The device according to claim 1, wherein the cover is composed of a substantially non-electrically conductive material.
11. The device according to claim 1, wherein the cover is composed of at least one of a plastic material and a glass material.
12. The device according to claim 11, wherein the antenna is situated between an abutting surface of the cover and an edge of the housing;
13. The device according to claim 1, wherein the antenna is free from physical contact with the housing.

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14. The device according to claim 1, wherein the antenna remains in a static position with respect to the opening when the cover is mounted on the housing.
15. The device according to claim 1, wherein the cover including a mounting location, the antenna being situated into the mounting location during a manufacturing process.
16. The device according to claim 1, wherein the cover including an inner cover and an outer cover, the antenna being inserted between the inner and outer covers.
17. The device according to claim 1, wherein the cover and the housing are unitary.
18. A device comprising:
a module having an opening formed therein, the module including an antenna mounted therein and adjacent to the opening, the antenna contacting a substantially non-conductive portion of the module and spaced from a substantially conductive portion of the module so that the antenna and the opening cooperate to handle communication signals.
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